

Special Area Management Plans

A Special Area Management Plan for Northampton County

Northampton County, the southernmost county on Virginia's Eastern Shore, forms the gateway to the Chesapeake Bay. It is a rural, agricultural county brimming with a wealth of unique natural and cultural resources, yet suffers from a depressed economy and chronic unemployment. The county provides habitat to over 260 species of birds and countless other fish and wildlife, and a chain of pristine barrier islands, the reasons for its designation as a World Biosphere Reserve by the United Nations. The County's traditional settlement pattern of compact villages and towns surrounded by productive land and water remains intact and shoreline vegetation provides critical food and habitat for millions of neotropical songbirds migrating along the East Coast each fall on their way to the tropics.

Now in its sixth year, the plan was developed by the Virginia Coastal Program in December 1991 with input from federal and state agencies, Northampton County planning staff, and nonprofit groups. The Northampton County Special Area Management Plan (SAMP) became known and adopted by the county's citizens as the County's Sustainable Development Action Strategy. A Director of Sustainable Development, hired in 1993 by the Coastal Program, coordinates the SAMP's county-wide activities, with the assistance of a Sustainable Development Task Force.

The Northampton SAMP has several goals: 1) *to develop new, enforceable policies to protect bird and fish habitats and control cumulative and secondary impacts of coastal development by maintaining maximum vegetative cover for wildlife habitat and nutrient uptake; and 2) to develop new, sustainable industries and protect a sense of place and quality of life, and to develop responsible heritage tourism, aquaculture and other sustainable industries.* (continued on page 63)

Note: The shading on this map illustrates the concentration or "funneling" of neo-tropical migratory birds through Northampton County and its neighbor, Accomack County, during fall migration.

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The Special Area Management Planning (SAMP) proposed modifications of County zoning and subdivision ordinances and development of a stormwater ordinance; development of seaside farm conservation easements; designation of Tier III or "Exceptional State Waters"; Memoranda of Understanding on appropriate public access, power line right-of-way and rural road standards to maximize native vegetation; and permit guidelines for aquaculture.

Habitat Protection Ordinances and Power Line Memorandum of Understanding (MOU): Zoning, subdivision and cluster development ordinances have all been written and are before the public. Although scientists recommended an overlay zone for migratory songbirds, County officials preferred County-wide ordinances because of the water quality benefits to be gained as well as habitat benefits from maximizing vegetative cover. Adoption of these ordinances has not yet come to a vote by the Board of Supervisors. MOU between Delmarva Power, Northampton County and the Virginia Department of Conservation and Recreation is being developed. Work in the 1996 grant will include: an inventory of rare plants occurring in the power line rights-of-way, identification of best management practices to protect rare plants, and replanting grass areas with low-growing native vegetation beneficial to wildlife and water quality. These practices should reduce or eliminate the need for mowing and herbicide use.

Water Quality Policies: A stormwater ordinance has been drafted and is before the public for review. Early on it became clear that aquaculture would be precluded in Tier III "Exceptional Waters" under the Clean Water Act. "No additional discharges" included no discharges from aquaculture hatcheries. The citizen group working on this effort instead began work on a more tailored approach; i.e. exceptional waters conservation easements. A model easement is being developed that would preclude any new discharges from the property except for aquaculture and crab shedding.

Public Access Memorandum of Understanding (MOU): Although an MOU has not yet been drafted, progress has been made in setting the stage for an MOU to be readily accepted by the proposed signatories. The goal is to have major public landowners (USF&WS, Virginia state agencies and Northampton County) agree on where public access should be encouraged and discouraged; create an Ecotourism Code of Ethics and a voluntary Ecotour guide certification program. Section 306 funds have been awarded to the Department of Conservation and Recreation to complete a barrier island bird conservation plan and an ecotour guide certification curriculum for the Eastern Shore.

Aquaculture Permit Guidelines: During the 1995 or 1996 grant year, progress began on aquaculture permit guidelines. In 1995 the General Assembly demonstrated the political will to act by requesting that the Virginia Marine Resources Commission study its organic statutes and regulations to identify barriers to aquaculture development. In October 1996 the Coastal Program contracted with VMRC to use Section 309 funds to develop a new permitting system for aquaculture. This work has just begun and will continue using Section 309 funds through FY'99.

Development of the Northampton SAMP has led to the leveraging of nearly \$3 million in additional funds from outside the Virginia Coastal Program. Northampton received grants from the U.S. Department of Transportation for ISTEA projects to restore historic sites and create a "Heritage Trail", from EPA for a brownfields/greenfields and habitat restoration project at the Cape Charles Eco-Industrial Park, and from the U.S. Department of Agriculture and the Economic Development Authority for infrastructure construction at the park. Additionally, the Coastal Program secured a grant from the U.S. Fish and Wildlife Service for a habitat preserve within the park, and is also funding habitat restoration and a boardwalk within the park's preserve. (1997 Task 54) The Northampton SAMP is expected to be completed by March of 1998.

Northampton County/Virginia Department of Environmental Quality

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Current Ongoing Activity

1992 Task 92.1, 1993 Task 92.1, 92.2, & 92.3, 1994 Task 92.1 & 92.3,

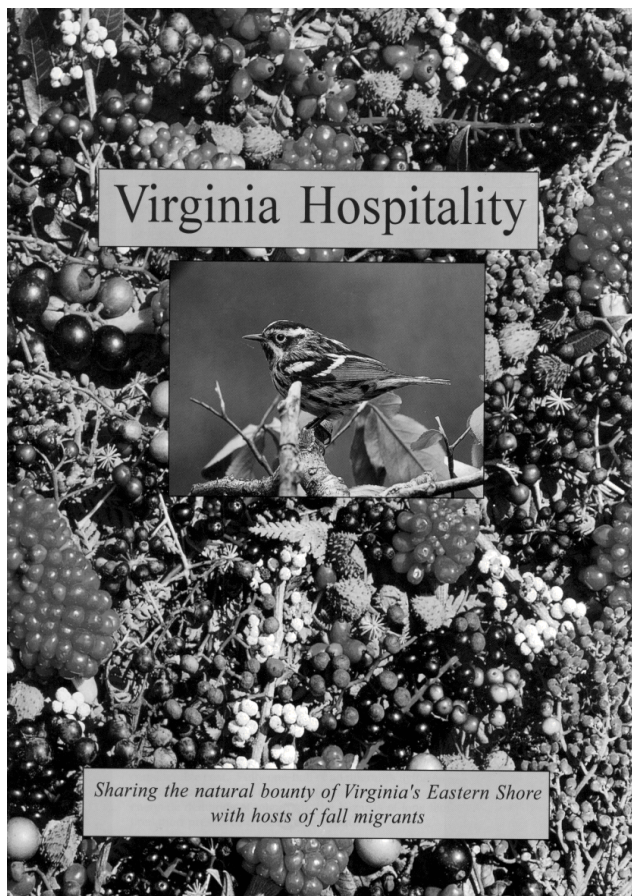
1995 Task 92.1 & 92.3, 1996 Task 92



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Migratory Bird Habitat Requirements

Before songbird habitat protection policies could be developed for the Northampton SAMP, it was necessary to scientifically document habitat needs. Two fall field seasons of population distribution data were collected and analyzed by Virginia's Departments of Conservation and Recreation and Game & Inland Fisheries. This data shows that neotropical migratory songbirds are most concentrated in the lower 10 km (6.5 miles) of the peninsula and stay within .5 km (3.25 miles) of the waterfront. Scientists recommended an overlay zone that would restrict removal of dense understory vegetation in this area. Migratory songbird populations are highly dependent on dense understory for cover from predators. They also forage in these understory areas for insects, fruits and seeds which provide them with the energy they need for their long distance flights to the tropics.



This popular publication was published by the Center for Conservation Biology at William and Mary, in association with the Kestrel Foundation, as part of the Virginia Coastal Program's SAMP funding to Northampton County (1993 Task 92.3). This colorful booklet, produced for the general public, contains beautiful photos of neotropical migrants and raptors and information on migration patterns, habitat requirements, and current efforts to conserve and protect fall migrants and essential bird habitat on the Delmarva Peninsula. Copies of this publication can be obtained by calling the Center for Conservation Biology at the College of William and Mary.

Northampton County Migratory Bird Habitat Utilization Study

A three year study by the Natural Heritage Program at the Department of Conservation and Recreation and the Department of Game and Inland Fisheries to determine the use of Northampton County's vegetation, habitat, and landscape by migratory songbirds began in the summer of 1992, following the interstate migratory songbird coastal corridor study, **The Neotropical Migratory Songbird Coastal Corridor Study**. (See Habitat and Wildlife, page 24.) The data collected was used to develop scientifically sound recommendations for the local ordinances to be adopted under the SAMP. Federal and state agencies are also using the information for their conservation programs.

*Virginia Department of Game and Inland Fisheries/
Virginia Department of Conservation and Recreation
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September 1993 (Phase I), December 1994 (Phase II)
1991 Task 92.2, 1992 Task 92.4, 1993 Task 92.4*



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Barrier Island and Marsh Nesting Waterbird Survey

An aerial and boat survey was conducted of colonial waterbird nesting sites using hand held Global Positioning System units. This project was also conducted to gather information to support the Northampton SAMP. Hard copy maps and digital data layers, suitable for entry into Arc/INFO GIS, of the barrier island and marsh nesting sites were produced.

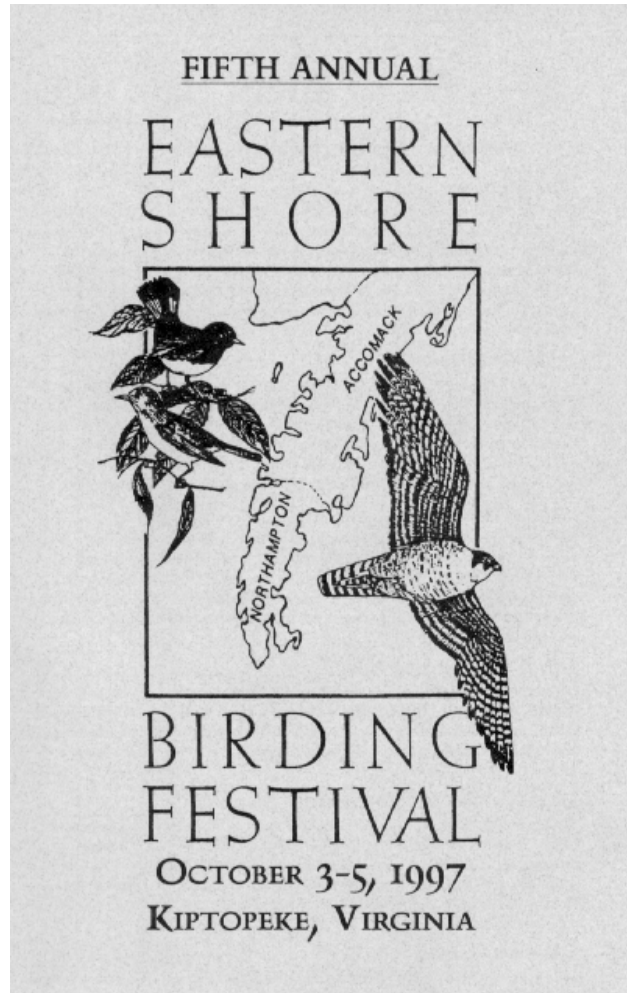
*Virginia Department of Game and Inland Fisheries/The
Nature Conservancy (TNC)
Contact: Barry Truitt, TNC, 804.442.3049
November 1993
1992 Task 92.5*



Migratory Bird Habitat Public Education & Policy Development

This SAMP project continued the work of the Department of Conservation and Recreation's Natural Heritage Division, the Center for Conservation Biology of William and Mary and the Virginia Department of Game & Inland Fisheries. The project developed a migratory bird field training program and slide show for resource managers and a land management guide for private landowners and local realtors and developers. Critical migratory songbird concentration areas were added to the county geographic information system.

*Virginia Department of Conservation & Recreation/
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March 1996
1994 Task 92.4*



Annual Eastern Shore Birding Festival

Now organized and hosted by the local Chamber of Commerce, the Eastern Shore Festival was initiated by the Coastal Program as a SAMP activity. The Birding Festival, headquartered at the southern tip of the county each fall, has been a successful demonstration of responsible ecotourism. According to the economic analyses of the festivals, several hundred thousand dollars have been brought into the county since 1993. The Festival celebrates the fall bird migration and generates substantial interest among birdwatchers nationally and internationally. The festival demonstrates the importance of habitat preservation and ecotourism's economic potential.

*Northampton County/Virginia Eastern Shore
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1992 Task 92.1, 1993 Task 92.3, 1994 Task 2.7,
1995 Task 2.3, 1996 Task 92*



Special Area Management Plans

Cape Charles Sustainable Technologies Industrial Park

Northampton County was selected from among 400 nationwide applicants as one of four locations in the United States for a model eco-industrial park by President Clinton's Council on Sustainable Development. A community design charette (planning session) was held and a master plan for the Port of Cape Charles Sustainable Technologies Industrial Park (STIP) was created as part of the Northampton SAMP. The Master Plan was developed by the University of Virginia's School of Architecture. Over 100 Cape Charles residents contributed to the design. The first tenant, Solar Building Systems (a Swiss-based company) has hired 25 local workers.

As part of its 1996 Coastal Program grant award, the County will complete additional, more detailed plans for various components of the Park including a retreat/conference center which will help promote the area as an ideal location for sustainable industries. The park will include a zero-emission water recovery/recycling system, a coastal dune habitat preserve, protective covenants for tenant agreements and an African-American Heritage Center. The park will represent a microcosm of the larger Northampton SAMP goals.

Northampton County

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1994 Task 2.5, 1994 Task 92.3, 1995 Task 92.3,

1996 Task 92



Photo courtesy of Northampton County

One of the 25 local workers hired by Solar Building Systems, Inc., the first tenant of the Cape Charles Eco-Industrial Park.



Photo/Map courtesy of Northampton County

A portion of the Cape Charles Sustainable Technologies Park showing the park, on the southside of the harbor, and the Town of Cape Charles, on the northside of the harbor. Cape Charles will be an integral component of the park community.

Promotional Video, Business Folder

A twelve minute film by Blue Earth Films (a company which has produced films for National Geographic and national public television) has been completed. The film, available on video cassette, describes the natural and cultural resources of the area, the sustainable development concept, and the Cape Charles Eco-industrial Park. The video, a business folder with specs on the Park and a poster of the Park have all been developed and used to attract companies to the area that will contribute to the sustainable development initiative.

Northampton County

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March 1997

1994 Task 2.9



Special Area Management Plans

Virginia's Seaside Farms: A Conservation Easement Program in Northampton County

The Nature Conservancy's easement program is designed to help protect the seaside wetlands included in the SAMP by ensuring that appropriate management measures are maintained on adjacent properties to provide buffers landward of the wetlands. Language was developed in this project for 10 seaside farm easements. The easement language requires the maintenance of dense understories and water quality protection BMPs on the farm. They also demonstrate how a farmer could develop a few clustered residences or guest cottages on the property to derive additional income without jeopardizing natural resources. When the properties are transferred, the easements will be recorded. A financial analysis model was developed and applied to illustrate that low impact development is an economically viable alternative for waterfront farms. A manual on developing seaside farm conservation easements was developed and is being used to encourage other seaside farm owners to record easements.

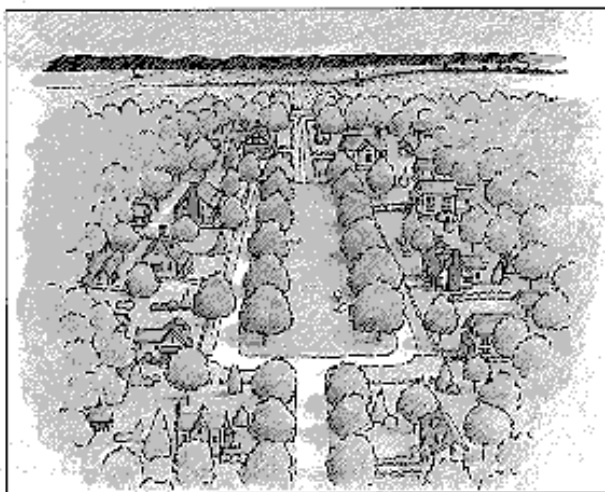
*The Nature Conservancy
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November 1992, February 1994
1991 Task 93, 1992 Task 93*



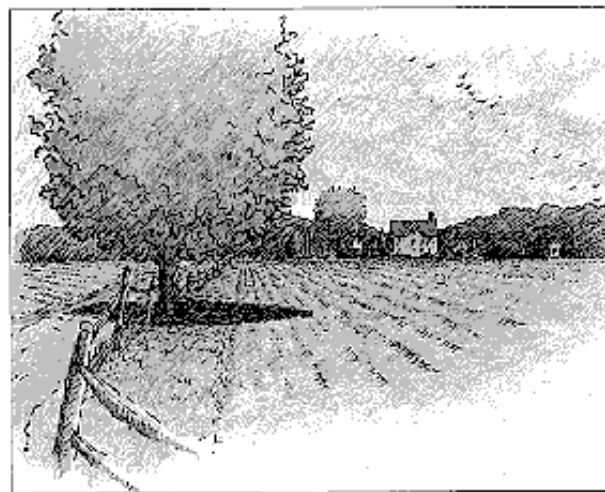
Historic House Settlement: The restoration of historic and traditional Eastern Shore dwellings is an integral part of the farm plan.



Nature Settlement: Wilderness dwellings are allowed in carefully selected areas maintaining farm, wetland and forestry resources.



Farm Settlement: From the ground level, the farm of the future will look much like the farm of the past.



Town Settlement: The farm of the 2050 might include a settlement adjoining an existing village.

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Southern Watershed Special Area Management Plan

The Southern Watershed Area (SWA), located in Southeastern Virginia, is the focus of the Coastal Program's second SAMP effort. The SWA is bordered by the Atlantic Ocean on the east and the Great Dismal Swamp on the west. The northern portion of the area is dominated by urban land uses and is undergoing rapid development. The southern portion, adjacent to the North Carolina border, is rural and contains extensive wetlands that include a variety of rare swamp, pocosin and marsh communities, which drain into the southern portion of the Albemarle-Pamlico Sound. Land uses in the southern portion of the area are primarily agricultural, silvicultural and rural residential. The Northwest River is the primary drinking water supply for the City of Chesapeake. The area is also one of the most biologically diverse regions in the state, supporting more than 40 rare species and 10 terrestrial, estuarine and palustrine wetland communities. In 1728, William Bryd described this area as a "green sea" due to its broad expanses of undulating, tall, green reeds.

The primary coastal management problem facing the SWA is the need to preserve its significant natural resources in the face of an increasing population and development pressure. The bulk of the new development associated with this population increase will take place in the SWA. As development pressures increase in the SWA, a coordinated effort to manage the watershed is essential. The proposed Southern Watershed Special Area Management Plan (SAMP) will focus on the development of new and enhanced enforceable policies that protect significant wetlands habitat and water quality.

The SWAMP seeks to minimize the adverse impact of continued urbanization on the natural resources of the SWA by improving the range of tools available to Virginia Beach and Chesapeake to control new development. In addition, the SWAMP will highlight the economic value of the natural resources through the investigation of several sustainable economic development initiatives, including nature tourism and organic farming.

The Cities of Virginia Beach and Chesapeake, working in partnership with the Hampton Roads Planning District Commission and the Coastal Program, have created a significant foundation for the Southern Watershed Management Program (SWAMP). This work has included development of a mission statement and a set of goals and objectives. The mission statement is as follows: "Natural resources, sensitive lands, and water supplies of the southern watersheds of Virginia Beach and Chesapeake should be protected and enhanced." The goals include protection of water quality, preservation of open lands, ensuring compatibility of economic development and natural resource protection, maintenance of the rural character of the area, and preservation of agriculture and silviculture in the watershed.

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A Special Area Management Plan for the Southern Watershed of Virginia

To accomplish its management goals, the Southern Watershed Special Area Management Plan (SWSAMP) will involve the development of several policies. These policies include: establishment of comprehensive mitigation strategies; refinement of preservation and conservation district provisions in the two cities; and development of memoranda of agreement among the agencies responsible for managing the southern watershed. The objectives of the memoranda are: to enhance a wildlife corridor system through conservation easements; develop a formal information exchange process; incorporate water quality data synthesized under the SAMP into urban and agricultural stormwater BMPs; and reduce waterway use conflicts. The SWAMP also includes research to support the policy changes, provisions for stakeholder involvement, and exploration of environmentally compatible industries such as nature tourism and sustainable agriculture. The following are key accomplishments of program to date: 1.) The creation of the Local Government Advisory Committee (LGAC) and the Water Quality Task Force (WQTF). These groups have fostered a strong working relationship among the entities responsible for managing the SWA. 2.) The development of a set of goals and objectives for the SWA as described on page 68. 3.) A Memorandum of Agreement (MOA) was signed by Chesapeake and Virginia Beach, formalizing the criteria for exchange of information on development projects in the SWA. In addition the MOA states that the two cities will support the previously mentioned goals and objectives for the SWA.

The SWAMP will receive Virginia Coastal Program support through September of 2000.

*Hampton Roads Planning District Commission
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April 1995, October 1996

1993 Task 56, 1995 Task 59, 1996 Task 93



Dragon Run Watershed Management Plan

The Dragon Run Management Plan outlines ways to improve local management of the Dragon Run watershed through education of landowners and visitors; cooperation with state agencies in voluntary practices and enforcement of regulations; and new local initiatives to provide quality in design and function to new development in the area. These combined efforts should result in the sustained quality of the Dragon Run waters, forests, fields, and communities for both human settlement and nature preservation.

The Dragon Run Watershed Management Program consisted of a three year planning process which included the work of a citizen advisory board, the Dragon Run Steering Committee, and volunteer water quality monitors. GIS was used for land use and features analyses and a water quality nutrient model was developed.

Middle Peninsula Planning District Commission

Contact: Jim Uzel, 804.758.2311

September 1996

1993 Task 59, 1994 Task 58, 1995 Task 62



See Also:

Habitat & Wildlife Management, page 29:

Monitoring Avian Migration at Kiptopeke State Park